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## Biodiversity

CTCI's engineering design takes into account the potential negative impacts on local species, habitats and ecosystems. While implementing the project, we insist to select proper locations, circumvent important protected zones and special habitats, and avoid endangering local endemic and endangered species. We promise that, while conducting our project, we would reduce the interference to the ecosystem, conserve the environmental quality, and protect the ecological area and creatures. We shall regularly monitor the environmental factors such as noise, vibration, air, and drainage water at the construction site to ensure the maintenance of the original habitat of organisms. CTCI formulates response and pressure indicators to ensure the actual implementation progress in line with our commitment and extends this commitment, performance indicators, and objectives to suppliers at and above the first tier.

In order to lower the impact on the ecosystem, in addition to the existing improvement measures on the construction site (such as avoidance, mitigation, restoration, and compensation), CTCI also expects to consult the personnel or institutions with ecological background during the discussion and formulation of construction specifications in the design stage, provide professional suggestions, assist in ecological data collection, ecological investigation and evaluation, ecological conservation measures, monitoring of ecological conservation measures, and refine the existing improvement measures, increase ecological restoration and timely adjust ecological conservation measures.

| Affected environmental factors | Improvement measures to mitigate the impact  | Contribution to biodiversity conservation   | Biodiversity metrics  |
|--------------------------------|--|---|---|
| <b>Air</b>                     | <ul style="list-style-type: none"> <li>Set up containment facilities and sprinkle water regularly to reduce dust</li> <li>Vehicles transporting earth shall be covered and car washing stations shall be set at the entrances and exits to prevent soil and particles from polluting the environment around the road</li> <li>Video surveillance equipment shall be set at the entrance and exit of the work area to ensure the cleanness of transport vehicles</li> <li>Select excellent transportation tools and construction machines and tools, and maintain them regularly to reduce the exhaust gas and meet the effluent standards</li> </ul>   | <ul style="list-style-type: none"> <li>Avoid air pollution, hindering plant growth or causing death</li> </ul>  | <ul style="list-style-type: none"> <li>Regular air quality monitoring (PM10)</li> <li>Investigate the plants in the area, compare them with those before construction, find out the causes of impact and improve them</li> <li>Plant endangered native plants</li> </ul>  |
| <b>Ocean</b>                   | <ul style="list-style-type: none"> <li>Set up an intercepting system and a silting basin to discharge the runoff water and general drainage sand after treatment, so as to avoid polluting the seawater quality</li> <li>Strengthen the maintenance of construction machines and tools and transportation tools to avoid oil pollution of water quality</li> <li>Discharge the construction workers' living wastewater after sewage treatment to reduce water pollution</li> <li>Set up a rainwater intercepting system to collect the polluted rainwater generated by ground pollutants to avoid directly flowing into the drainage system and polluting the seawater quality</li> <li>After the cooling water is cooled to an appropriate temperature and the water quality is confirmed, it can be discharged into the sea to reduce the impact of temperature on marine organisms</li> </ul> | <ul style="list-style-type: none"> <li>Prevent seawater and river water from being polluted by chemicals and affecting the growth of aquatic organisms</li> <li>Prevent the rise of sea water temperature and affecting the survival of coral, fish and other marine organisms</li> </ul> | <ul style="list-style-type: none"> <li>Regularly detect the discharge water (pH, water temperature, ammonia nitrogen, nitrate nitrogen, BOD, number of Escherichia coli, etc.)</li> <li>Monitor changes in water quality related data</li> <li>Strengthen sewage treatment facilities (improve sewage treatment system and specific sewage collection) to reduce the impact on water quality</li> <li>Investigate the biological species and quantity in the area, compare with that before construction, if there is any reduction, find out the cause of impact and improve it</li> </ul> |
| <b>Noise</b>                   | <ul style="list-style-type: none"> <li>Use machines and tools with low noise or silencing equipment</li> <li>Use temporary noise insulation facilities for construction machines and tools with high noise to reduce the impact</li> <li>Improve road conditions and reduce noise caused by vehicle vibration</li> </ul>   | <ul style="list-style-type: none"> <li>Reduce the interference of noise to local organisms</li> </ul>   | <ul style="list-style-type: none"> <li>Noise monitoring (Leq, Lx, Lmax)</li> <li>Investigate whether the animals near the work area have been reduced or disappeared due to noise</li> <li>Strengthen noise control measures</li> </ul>   |
| <b>Vibration</b>               | <ul style="list-style-type: none"> <li>Construction machines and tools with low vibration are adopted</li> <li>Avoid truck overload and strictly limit the weight</li> <li>Equipment prone to vibration shall be set in an area far away from sensitive points</li> </ul>  | <ul style="list-style-type: none"> <li>Reduce noise caused by vibration</li> <li>Reduce vibration and impact on the soil near the work area</li> </ul>  | <ul style="list-style-type: none"> <li>Vibration monitoring (Leq, L10)</li> <li>Regularly investigate whether the animals in the soil near the work area are reduced or disappeared due to vibration</li> <li>Strengthen vibration control measures</li> </ul>  |
| <b>Waste Materials</b>         | <ul style="list-style-type: none"> <li>General domestic waste and engineering waste shall be cleaned and transported by local cleaning units or professional treatment vendors approved by the government</li> <li>The surplus material management system manages the surplus materials of the engineering so that they can be reused in other projects and reduce waste</li> </ul>  | <ul style="list-style-type: none"> <li>Avoid disposal wastes arbitrarily, which would result in soil or water pollution and death of organisms in the environment</li> <li>Reuse of surplus material, reduce waste and pollution caused by manufacturing materials</li> </ul>             | <ul style="list-style-type: none"> <li>Regularly check the recycling and discarding of wastes and confirm whether they are treated according to standards</li> <li>Spot check the thorough implementation of the surplus material system</li> </ul>   |

In addition to reducing the environmental burden, CTCI promises to cooperate with the first or higher tier suppliers to actively achieve the goal of zero deforestation during the construction and implementation stage, and will do appropriate forest planting, maintain water and soil conservation, prevent wind, reduce dust and give more living space to all kinds of organisms. Regarding the office paper, vendors with forest deforestation records will not be considered. In the future, renewable paper will be considered.

In future planning, CTCI will consult experts with biological background to adopt more biological friendly measures (such as bird nests, and insect boxes) in the construction stage. In the selection of the supply chain, damage to biodiversity in the workplace or deforestation will be avoided. We look forward to cooperating with the supply chain to make a contribution to the earth and biology.